

DISTRIBUTION OF POPULATION IN ACCORDANCE WITH TEMPERATURE. LIX

TABLE XXXIV.

Groups.	Population.		Population per square mile.		Increase in density, 1870-1880.		Percentage of total population.	Percentage in percentage of total population, 1870-1880.	Population below each group.		Percentage of total population below each group.		Foreign.	Percentage of total foreign.	Proportion of foreign to total in group.	Colored.	Percentage of total colored.	Proportion of colored to total in group.
	1870.	1880.	1870.	1880.	1870.	1880.			1870.	1880.	1870.	1880.						
Below 60°.	151,753	244,598	4.7	7.5	2.8	0	1	+1	151,753	244,585	0	0	107,160	1.63	43.81	1,480	0.02	0.01
60 to 65.	567,588	783,256	2.8	3.9	1.1	2	2	0	710,341	1,027,840	2	3	182,242	2.73	23.27	3,892	0.06	0.50
65 to 70.	4,243,775	5,147,657	8.1	9.0	1.8	11	10	-1	4,963,116	6,175,506	13	13	971,499	14.54	18.87	39,093	0.50	0.76
70 to 75.	16,470,602	19,551,956	10.4	24.0	4.6	43	39	-4	21,433,808	27,727,462	56	52	3,987,747	59.69	20.30	314,907	4.79	1.66
75 to 80.	11,888,220	16,618,718	10.1	26.5	7.4	31	33	+2	33,302,028	42,246,180	87	85	1,124,476	16.88	0.81	2,987,571	45.40	18.09
80 to 85.	5,192,163	7,709,258	7.4	11.0	3.6	13	15	+2	38,494,191	50,045,438	100	100	278,283	4.17	3.57	8,221,280	48.95	41.30
85 to 90.	58,571	93,655	1.4	2.2	0.8	0	0	0	38,552,762	50,139,093	100	100	23,867	0.35	25.48	12,564	0.10	18.42
Above 90.	5,609	10,600	0.1	0.3	0.2	0	0	0	38,558,371	50,155,783	100	100	4,650	0.08	27.91	.....	.....	.....

The midsummer temperature table shows the same complementary arrangement of the two elements, the foreign and the colored. The former is above its general proportion until we reach 75° of July temperature; thence upward to the highest temperature recorded in the table the colored element is in excess, while below 75° it is largely below its general proportion. It will be noted, however, in the groups between 85° and 95° that, although the number of foreign inhabitants is small numerically, it still bears a large proportion to the total population in these groups. This is due to the fact that these groups are mainly represented in the southwest—Arizona, Nevada, and southeastern California. It will be noted that more than one-half of the foreign population is between 70° and 75°, while over 91 per cent. is found between 65° and 80°. The colored population is almost entirely found between 75° and 85°.

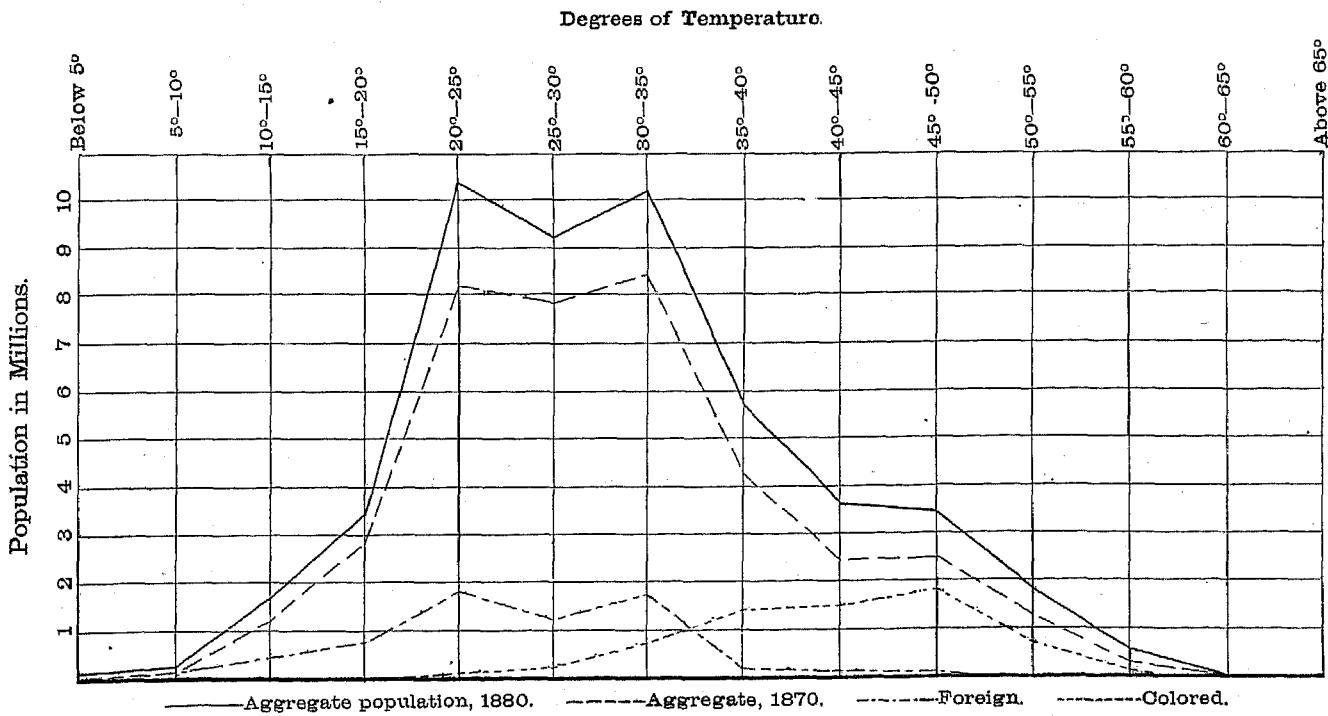
Table XXXV shows the distribution of population grouped in conformity with the mean temperature of the coldest month; that is, January.

The range within the United States is from 0 to 70°. The lowest class comprises northern Minnesota, northeastern Dakota, including the Red River valley, and much of the wheat region lying west of it.

The whole wheat region of Dakota and Minnesota has a midwinter temperature below 10°. The prairie region of the Mississippi valley lies between 10° and 30°. The lower limit of the cotton region is the isothermal of 35°; that of the sugar and rice sections the isothermal of 50°.

The population appears to be quite evenly distributed over a great range of temperature; 90 per cent. of it is found between 10° and 55°, while 58 per cent. is between 20° and 35°, which groups include nearly all the large cities.

DISTRIBUTION OF POPULATION IN ACCORDANCE WITH THE MEAN TEMPERATURE OF JANUARY.



INTRODUCTION—DISCUSSION OF THE POPULATION.

TABLE XXXV.

Groups.	Population.		Population per square mile.		Increase in density, 1870-1880.		Percentage of total population.		Change in percentage of total population, 1870-1880.	Population below each group.		Percentage of total population below each group.		Foreign.	Percentage of total foreign.	Proportion of foreign to total in group.	Colored.	Percentage of total colored.	Proportion of colored to total in group.
	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.		1870.	1880.	1870.	1880.						
Below 5°...	2,093	50,078	0.0	0.8	0.8	0	0	0	0	2,093	50,078	0	0	25,570	0.38	51.06	224	0	0.45
5 to 10	82,476	266,041	0.5	1.6	1.1	0	1	+1	84,509	316,119	0	1	95,300	1.42	35.82	802	0.01	0.30	
10 to 15 ...	1,120,712	1,760,680	3.2	5.0	1.8	3	4	+1	1,205,281	2,076,799	3	5	465,706	0.97	26.45	4,403	0.07	0.28	
15 to 20	2,873,595	3,482,498	10.7	13.4	2.7	8	7	-1	4,078,816	5,550,297	11	12	678,843	10.15	19.47	15,920	0.24	0.46	
20 to 25	8,223,659	10,292,914	24.0	30.0	6.0	21	21	0	12,302,475	16,852,211	32	33	1,841,070	27.56	17.80	102,801	1.56	1.00	
25 to 30 ...	6,848,589	9,146,951	17.3	23.2	5.9	18	18	0	10,151,064	24,999,162	50	51	1,286,485	10.26	14.06	231,272	3.52	2.53	
30 to 35	8,546,042	10,150,707	26.2	33.5	5.3	22	20	-2	27,697,106	35,149,860	72	71	1,060,441	24.86	10.36	655,051	0.95	6.45	
35 to 40 ...	4,250,060	5,011,319	11.8	15.6	3.8	11	11	0	31,947,766	40,761,188	83	82	107,901	1.02	1.92	1,487,092	22.60	26.50	
40 to 45	2,558,153	3,588,008	9.8	13.8	4.0	7	7	0	34,505,919	44,349,196	90	89	72,011	1.08	2.01	1,508,243	23.83	43.71	
45 to 50	2,415,707	3,495,278	8.5	12.3	3.8	6	6	0	36,021,626	47,844,474	90	95	106,624	1.60	3.05	1,723,924	26.20	40.32	
50 to 55 ...	1,262,821	1,824,138	7.0	11.5	3.6	3	4	+1	38,184,447	49,668,612	90	99	254,448	3.81	13.95	655,278	0.96	35.92	
55 to 60	355,826	450,750	6.7	8.6	1.9	1	1	0	38,640,273	50,125,382	100	100	76,087	1.14	10.66	131,243	2.00	28.73	
60 to 65	15,245	24,930	0.7	1.2	0.5	0	0	0	38,555,518	50,150,292	100	100	7,177	0.11	28.79	2,845	0.04	11.41	
Above 65 ..	2,853	5,491	0.9	1.7	0.8	0	0	0	38,558,871	50,155,783	100	100	2,701	0.04	50.28	1,005	0.02	20.28	

The above table, showing the distribution of the foreign and the colored population with reference to the mean temperature of January, shows a much wider distribution of these elements; still, the great body of the foreign population is between 15° and 35°, while the colored is between 30° and 55°. The foreign element is in excess of its general proportion from the lowest grade up to 35°. The next three classes show a comparatively small percentage, far below the normal, as these classes are confined mainly to the southern states, where the foreign element is deficient, while the last four classes are made up largely of the southwestern territories, which contain a comparatively large foreign element.

In the case of the colored population the division on midwinter temperature lines is much more marked, a very small percentage being found in the groups up to 35°, while from there to the highest grades, with but one exception, the percentage is in excess of the normal.

Table XXXVI shows the distribution of population in accordance with the highest observed temperatures.

This classification shows a great degree of uniformity in the humid region of the country. In this section a higher temperature than 105° is practically unknown, while the portions in which the maximum temperature never rises above 95° are very limited, and contain a very light population, being confined almost entirely to the mountain regions of the Appalachian system. No less than 93 per cent. of the population are found in the classes which have a maximum temperature between 95° and 105°.

The whole Atlantic coast from Penobscot bay to the mouth of the Rio Grande, and the whole coast of the great lakes, beside a considerable portion of the Pacific coast, are found in the class of 95° to 100°, while classes 100° to 105° comprise the Atlantic plain, stretching from the eastern base of the Appalachian system to the neighborhood of the coast, and nearly all of the Mississippi valley. As we approach the plains, whether in the northern or southern part of the country, the maximum temperature increases, so that the line of 105° maximum temperature is not very far removed from the north and south line.

The highest maximum temperature is in southwestern Arizona and southeastern California, where the thermometer is said to have registered 135° in the shade. The maximum on the Pacific coast ranges from 90° to 100°, but back from the coast, in the great valley of California, great extremes have been observed.

DEPARTMENT OF THE INTERIOR



NOTE. The curves in the Cordillera region
are to a large extent hypothetical.
The material used for this map was
taken mainly from the Smithsonian
Temperature Tables by Chas. Bennett.



MAP OF THE
UNITED STATES
SHOWING THE DISTRIBUTION OF THE LINES OF
MAXIMUM TEMPERATURE

Prepared to illustrate the corresponding distribution of the population
at the date of the tenth Census.

BY
HENRY GANNETT, E.M.
1880.

Scale 100 0 100 200 300 400 500 600 Miles.

DISTRIBUTION OF POPULATION IN ACCORDANCE WITH TEMPERATURE. LXI
 DISTRIBUTION OF POPULATION IN ACCORDANCE WITH THE MAXIMUM TEMPERATURE.

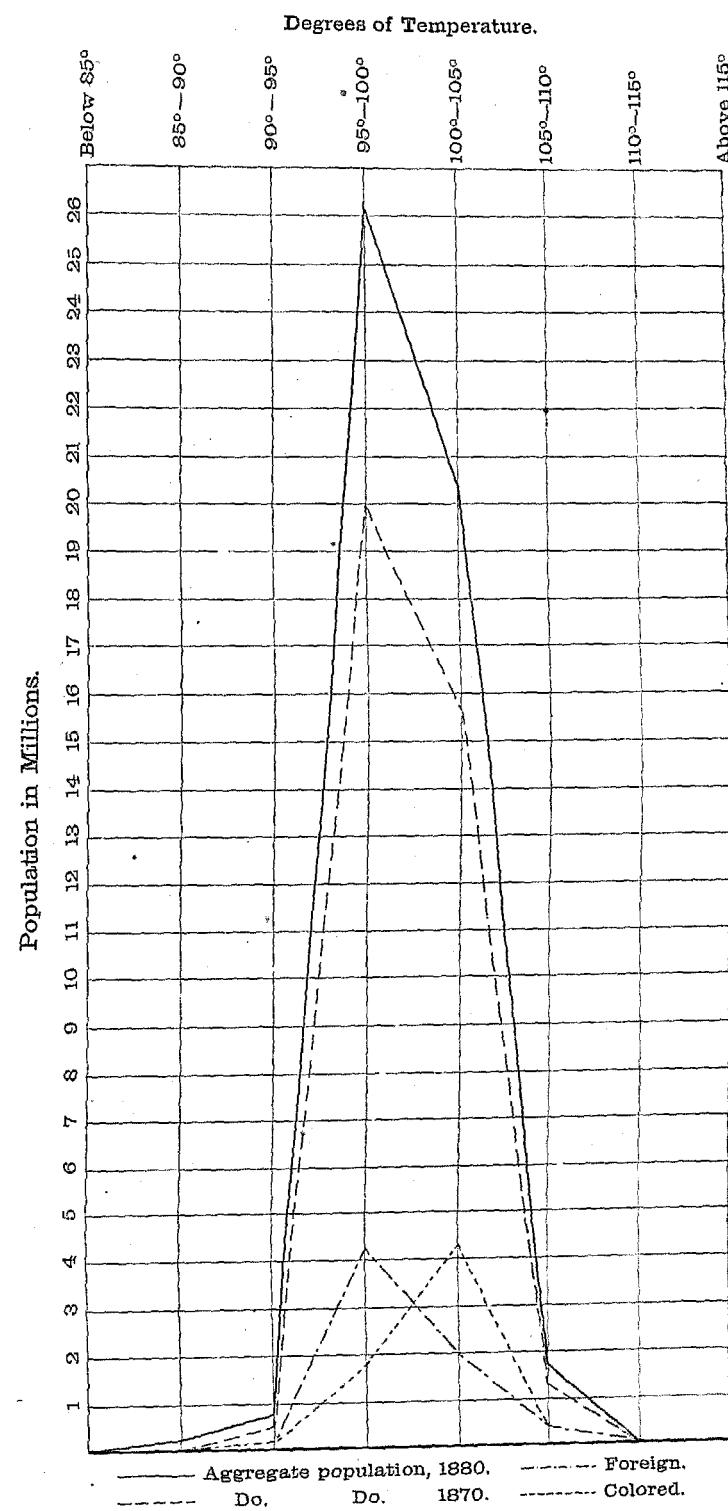


TABLE XXXVI.

Groups. #s.	Population.		Percentage of total popula- tion.		Population below each group.		Percentage of total popula- tion below each group.		Foreign.	Percentage of total foreign.	Proportion of foreign to to- tal in group.	Colored.	Percentage of total colored.	Proportion of colored to to- tal in group.
	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.						
Below 85°.....	685	593	0	0	685	593	0	0	225	0.75	41.74	1,292	0.92	0.75
85 to 90.....	64,280	173,221	0	0	64,965	173,760	0	0	52,512	30.32	30.32	3,642	28.98	31.47
90 to 95.....	500,774	658,742	1	1	574,739	832,502	1	1	196,772	2.35	15.98	1,901,764	62.61	67.63
95 to 100.....	20,000,741	26,160,737	52	52	20,584,480	27,002,239	53	53	4,182,269	1.59	4,182,269	4,450,723	9.59	9.40
100 to 105.....	15,088,532	20,304,098	41	41	36,273,012	47,396,337	94	94	1,055,161	29.26	10.65	23,61	23.15	23.15
105 to 110.....	2,240,720	2,488,145	6	6	38,522,732	50,084,482	100	100	286,269	4.28	11.719	0.18	0.06	0.06
110 to 115.....	23,515	49,632	0	0	38,546,247	50,134,114	100	100	5,016	100	5,016	23,15	0.49	0.49
Above 115.....	12,124	21,660	0	0	38,558,371	50,155,783	100	100	0	0	0	0	0	0

In the preceding table, showing the distribution of the foreign and colored elements in accordance with the highest observed readings of the thermometer, the sharp line of demarkation between the foreign and colored elements appears to cease entirely. A reference to the map, however, shows at once the reason of this. The maximum temperature is dependent but little upon latitude, but is controlled, as was stated above, almost entirely by the relative moisture of the atmosphere, and consequently its lines in this country follow meridians more nearly than they do parallels. Nearly two-thirds of the foreign population are found in grade 95° to 100° , while of the colored nearly 97 per cent. reside in that and succeeding grades. In the first of the above classes the foreign population is in excess of the normal ratio, and in the latter below it.

With the colored the case is reversed. The class 100° to 105° comprises two-thirds of the colored population, more than 96 per cent. being found in the two classes 95° to 105° .

Table XXXVII shows the distribution of population in accordance with the lowest observed temperature. In this class 18 groups are indicated, ranging from 55° below zero up to 30° above, with an extreme range of more than 85° . The great bulk of the population lies between 35° below zero and 10° above, a range of 45° , within which limits are found 95 per cent. of the population. The smaller groups outside of this body are confined almost entirely to the Cordilleran region and to the Pacific coast.

DISTRIBUTION OF POPULATION IN ACCORDANCE WITH THE MINIMUM TEMPERATURE.

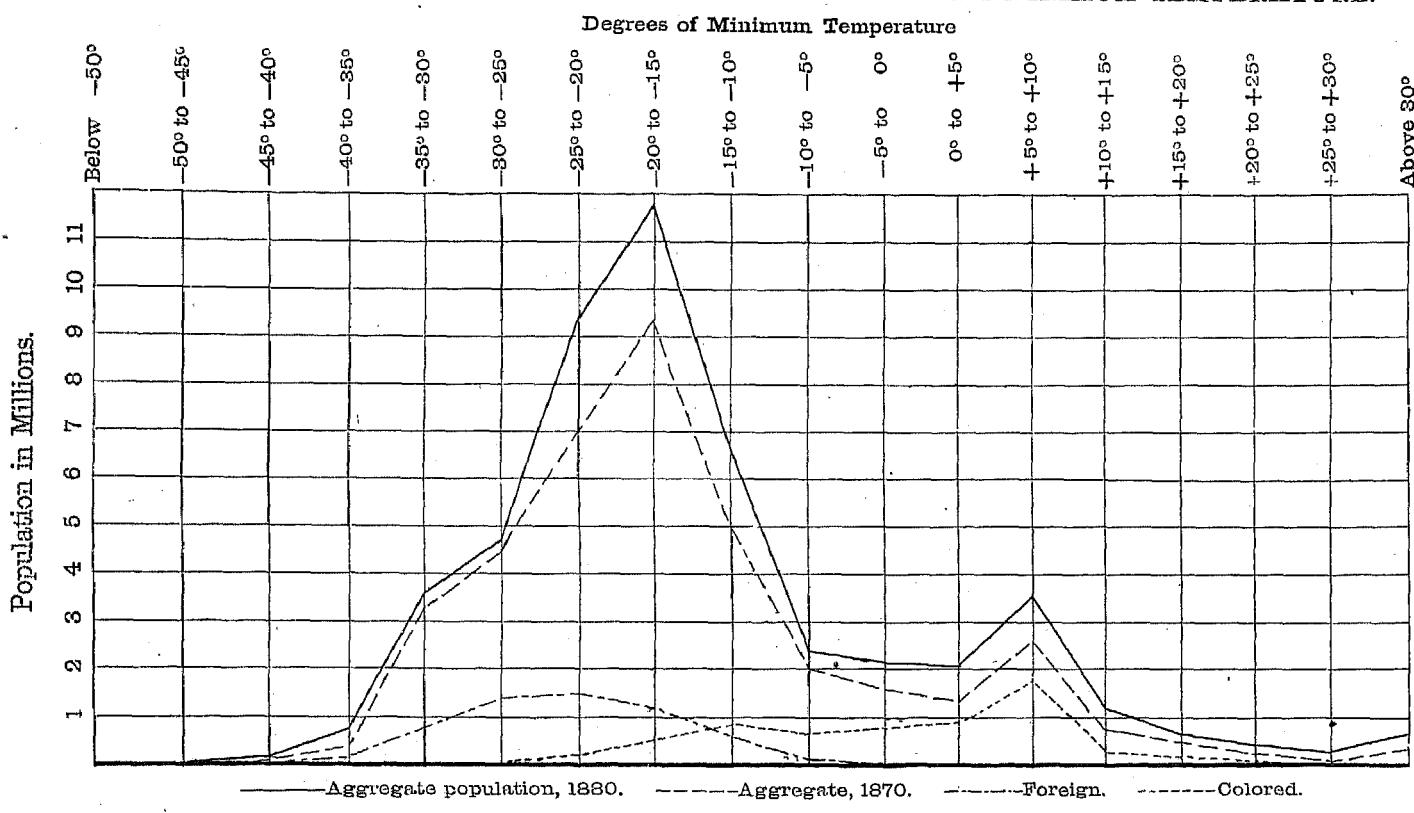


TABLE XXXVII.

Groups.	Population.		Percentage of total population.		Population below each group.		Percentage of total population below each group.		Foreign.	Proportion of foreign to total in group.	Colored.	Percentage of colored to total colored.
	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.				
Below -55°	6,888	16,940	0	0	6,888	16,940	0	0	4,021	0.06	23,72	246
-45 to -50	2,021	9,155	0	0	8,909	26,104	0	0	2,123	0.03	23,19	.....
-40 to -45	20,043	134,218	0	0	28,952	160,322	0	0	52,625	0.79	39,21	1,626
-35 to -40	320,933	678,178	1	1	358,885	833,500	1	1	236,350	3.54	35,11	2,476
-30 to -35	3,377,340	9,856,905	10	8	3,736,223	4,690,405	11	9	770,004	11.53	10,97	18,130
-25 to -30	4,403,563	5,718,754	11	12	8,199,788	10,400,150	22	21	1,443,712	21.61	25,25	04,862
-20 to -25	6,038,024	8,471,652	17	17	14,897,812	18,880,811	39	38	1,487,600	22.27	17,56	85,911
-15 to -20	9,435,525	11,807,385	24	24	24,273,387	30,688,196	63	62	1,262,469	18.00	10,69	518,216
-10 to -15	5,080,870	6,014,680	18	18	20,334,216	37,302,885	76	75	835,508	12.51	12,63	815,452
-5 to -10	2,018,468	2,028,123	5	5	31,352,684	39,026,407	81	80	91,304	1.37	3.48	714,191
0 to -5	1,588,006	2,150,390	4	5	32,940,690	42,085,397	85	85	24,630	0.37	1.14	822,926
0 to 5	1,402,248	2,108,963	4	4	34,342,933	44,189,360	89	89	21,924	0.32	1.01	940,832
5 to 10	2,604,411	3,625,371	7	7	36,947,344	47,814,731	96	96	30,451	0.50	1.03	1,024,296
10 to 15	806,964	1,095,847	2	2	37,754,308	48,010,578	98	98	93,759	1.40	8.56	469,054
15 to 20	431,232	667,518	1	1	38,185,540	49,578,096	99	99	123,502	1.85	18.52	192,210
20 to 25	110,056	157,095	0	0	38,295,506	49,786,031	99	99	39,053	0.58	24.73	8,743
25 to 30	57,311	90,360	0	0	38,332,007	49,826,400	99	99	24,240	0.36	26.82	3,616
Above 30	205,464	329,383	1	1	38,558,371	50,155,783	100	100	128,019	1.92	38.87	9,006

DEPARTMENT OF THE INTERIOR



In the preceding table, which concludes the series relating to temperature, the foreign element is found in excess of its general proportion from the lowest grade up to 20° below zero. From that point to 15° above zero it is below the average, rising above it through the remainder of the table, owing to the large proportion of foreign population in the southwestern territories, where the greatest extremes of temperature are found.

The colored population is below, in some cases far below, its general proportion up to 10° below zero; from that point to 20° above zero it is in excess, falling off rapidly beyond that point.

DISTRIBUTION OF POPULATION ACCORDING TO RAINFALL.

The prosperity of a country depends largely upon its rainfall, as, to a very great extent, the primary industry, that upon which all others depend directly, viz, agriculture, may be said to flourish in a degree directly proportioned to the amount of moisture. Of rainfall this country receives in its different parts a very different supply. Throughout the eastern half of the United States the rainfall is ample for all purposes of agriculture, while in the western half, with the exception of a narrow strip along the Pacific coast, the supply is very deficient. With the exception of the Cordilleran region our rainfall is nearly all derived from the Gulf of Mexico and the Atlantic ocean. Of the two, the principal source is the Gulf. The warm, moist currents which accompany the Gulf Stream from the Caribbean sea are not deflected toward the eastward in the Gulf of Mexico, as the great oceanic river is, but pass northward and eastward over the land in a broad belt extending from the coast of Texas to the peninsula of Florida. Judging from its effects in the form of rainfall, the central portion of this current passes over eastern Louisiana and Mississippi and western Alabama. The natural result of leaving the warm ocean surface and entering the continent is to cool these air currents and make them deposit their vapor. The heaviest deposit is along the northern shore of the Gulf, in the states of Louisiana, Mississippi, and Alabama, and the western part of Florida, where the rainfall reaches 60 inches per annum. Were there no mountains or other irregular topographical features to modify the rainfall this wave would move inland in a northeasterly direction, the precipitation decreasing eastward, northward, and westward, the lines of equal rainfall taking the form of great concentric ellipses. This form we see roughly outlined in the western part of the Mississippi valley, the rainfall decreasing regularly to the northward and westward. To the northeastward, however, these moisture-laden currents encounter the southern end of the Appalachian chain, and are driven at once up to high altitudes, where they are forced to disgorge their vapor, giving to this end of the mountain system a heavy rainfall, while farther along the chain, toward the northeast, the rainfall diminishes, becoming even less than that of the lower country, on the east and west. The portion of the moisture-laden current which passes to the eastward of the Appalachian chain meets and minglest with moist air currents coming directly from the Atlantic, and produces, in the central parts of North and South Carolina, an area of abnormally heavy rainfall. A second source of moisture is the Atlantic ocean. Here the moist air currents from the Gulf Stream produce a line of heavy rainfall along the Atlantic coast, reaching from Florida to the neighborhood of the bay of New York. This strip is quite narrow, being confined to the coast and its immediate neighborhood. Back of that, and over the greater portion of the Atlantic plain, the precipitation is notably less. The conditions of the coast as regards rainfall are somewhat changed north of the latitude last mentioned; that is, near the bay of New York. The Gulf Stream, which has been gradually trending off shore, is here at a considerable distance from the coast. Between the coast and the Gulf Stream has appeared a polar current flowing southwesterly. The contact between the warm-air currents of the Gulf Stream and the cold winds accompanying this polar current undoubtedly causes the heavy fogs which prevail on the banks of Newfoundland and St. George's banks, extending, in a greater or less degree, to the New England coast. Although there is a decrease in the rainfall of this part of the coast from that farther south, yet it is not particularly marked. The precipitation is, however, greatest on the coast and decreases inland.

Leaving now the eastern half of the country, let us trace the rainfall westward. The lines indicating a smaller degree of rainfall succeed one another at intervals more or less regular as we go west, out of the course of the great continental wave of moisture, and up the slope of the plains. The country here is uniform and generally level, and there is nothing to interrupt the regular decrease in the amount of precipitation until we reach the base of the Rocky mountains. From this line westward to the Sierra Nevada we find the conditions of rainfall which are incident to a mountain country accompanied by a dry atmosphere. Taking the Cordilleran region as a whole, with the exception of that part lying west of the Sierra Nevada and Cascades, the rainfall probably does not average more than 10 or 15 inches annually. This, however, is not deposited uniformly over the country; there are certain conditions under which the rainfall in some parts of this region is much greater than in others. Other things being equal, the higher the latitude and the greater the altitude the greater will be the rainfall. Under this rule the more northern parts of the Cordilleran region enjoy a greater rainfall than the southern parts. The mountains and high plateaus are better watered than the low lands. The best watered parts of this region are the northern parts of Washington and Idaho, the western part of Montana, northwestern Wyoming, which includes the elevated region known as the Yellowstone National Park, and the high plateaus and ranges of central Colorado. The most arid portions, and those which receive the least rainfall, are western Arizona, southern Nevada, and southeastern California. Although throughout this region we have but few and scattered observations of rainfall, the relative

amount can be predicated with a considerable degree of certainty by the character of the vegetation. Everywhere arborescent vegetation implies a considerable amount of rainfall, and accordingly we find the higher plateaus, the mountains, and the regions in the higher latitudes, covered with forests. A second zone of rainfall is indicated by the bunch and gama grasses which cover the plains and most of the mountain valleys. They indicate a rainfall not in general sufficient for the needs of agriculture. A third zone is indicated by *Artemisia*, or "sage brush", as this characteristic western shrub is popularly called, while a fourth zone is indicated by the cactus, the yucca, or by an absence of all vegetation whatever.

As has been suggested heretofore, the rainfall in the Cordilleran region east of the Sierra Nevada is in general insufficient for the needs of agriculture, excepting in a few isolated areas where local topography induces a rainfall greater than the normal one. In that section irrigation is everywhere necessary for the production of cereal crops. Generally it may be stated that a less annual rainfall than 20 inches, or a less rainfall than 12½ inches, during the growing season of crops—that is, during the spring and summer—is insufficient for their successful cultivation, and where this supply is not furnished naturally an equivalent must be supplied by means of irrigation. This limit is reached along a line running approximately on a meridian and passing through the middle of Dakota, western Nebraska, western Kansas, and central Texas. In the neighborhood of this line, and extending perhaps a degree on each side of it, is a debatable ground, where, in some seasons, the rainfall is sufficient for all crops, while in others it is insufficient. This is Powell's sub-humid region. As a rule, wherever irrigation is necessary, the possible extent of agriculture, and in consequence the possible density of settlement, are dependent upon the amount of water carried in the streams. In most parts of the Cordilleran region there is apparently a far greater amount of land suitable for cultivation than can ever be irrigated, even under the most economical distribution of water. Concerning this point, however, we are at present much in the dark, the capacity of few streams having been measured, even approximately. Under the wasteful system of irrigation at present practiced throughout the West (except in some portions of southern California) the limit of settlement will very soon be reached, so far as the population is dependent upon agriculture.

A question which has assumed practical importance of an almost national character is the effect of the planting of trees and cultivation of the soil upon climate, many high authorities maintaining that these causes produce an increase in rainfall, and consequently that it is possible to redeem the whole Cordilleran region by a judicious system of cultivation and tree-planting, particularly of the latter. It is doubtful whether that effect can be produced by this or by any other means within the power of man. Such facts as we have in the form of rainfall records in the Cordilleran region do not substantiate the theory, the records showing that the rainfall has not increased in the regions covered by our border settlements since their earliest formation. At the same time, it seems highly probable that a change has been produced, which, while not affecting the climate, has modified decidedly the conditions of moisture. The effects of cultivation upon the soil in covering it with vegetation, and especially with trees, has in general been to retain the moisture upon and in the soil, instead of allowing it to run directly off into the streams or to be taken up at once by evaporation. In other words, a much larger proportion of the rainfall is rendered effective for agricultural purposes. This effect is already very marked throughout Dakota, Kansas, and Nebraska, and even to some extent in Utah and Colorado.

It remains to sketch the rainfall of the Pacific coast. It is in all respects peculiar and different from that of the rest of the country. There are along the whole coast, and extending eastward as far as the Sierra Nevada and the Cascade range, well-defined wet and dry seasons, the former corresponding to the eastern winter, the latter to the eastern summer. Taking the year through, the rainfall is very much heavier in the northern part of this section than in the southern. In western Washington territory it rains almost constantly for six months of the year, while, even in the wet season, the supply of rain in southern California is scanty.

An explanation of this peculiar climate is to be found in the ocean currents and the prevailing winds. The winds on the western coast are, as a rule, the "anti-trades", blowing from the west and southwest. These winds pass, on nearing the coast, over the great Japanese current, which, north of Oregon, is, relatively to the land, a warm current, while south of Oregon it is, relatively, a cool current. In passing over this portion of the sea the atmosphere becomes surcharged with moisture. On reaching the coast the amount of precipitation from this moisture-laden atmosphere depends upon the change of temperature which it encounters. North of Oregon, the land being, as stated above, colder than the sea, there is great precipitation, while south of that state, the land being the warmest, the precipitation decreases, till in southern California, where the difference between the sea and land temperature is the greatest, it is almost nothing. The line of demarcation between the different temperatures varies with the season, ranging northward in the summer and southward in the winter, thus giving the alternations between the wet and dry seasons so peculiar to this coast. The influence of the mountains of the Pacific coast, although not sufficient to account for all the phenomena of this climate, still plays a very important part in it. The ascent of the warm currents up the mountain sides of course cools them very greatly and causes them to deposit whatever remaining moisture they may contain. To illustrate the extent of the action of mountain ranges, it may be stated that although in the valley of the San Joaquin the rainfall is very light, yet upon the high Sierras it has been found to reach 90 inches in a single year.



DISTRIBUTION OF POPULATION ACCORDING TO RAINFALL.

LXV

The following tables illustrate the distribution of the population with relation to the rainfall. The first table relates to annual rainfall; the second to that of the spring and summer months.

DISTRIBUTION OF POPULATION IN ACCORDANCE WITH THE MEAN ANNUAL RAINFALL.

Inches of Rainfall.

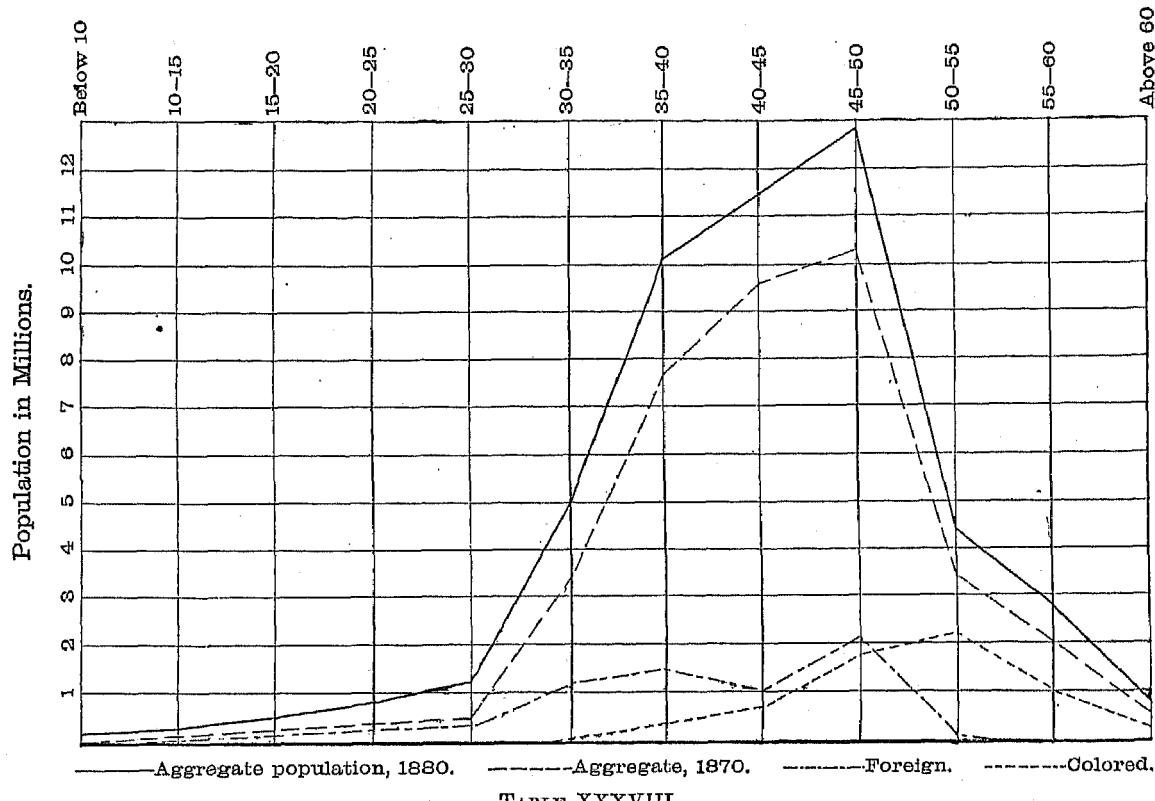


TABLE XXXVIII.

Classes— inches of rainfall.	Population.		Population per square mile.		Increase in density, 1870-1880.	Percentage of total population.	Percentage of total population, 1870-1880.	Population above each grade.		Population above each grade.	Foreign.	Percentage of total foreign.	Proportion of foreign to total in group.	Colored.	Percentage of total colored.	Proportion of colored to total in group.		
	1870.	1880.	1870.	1880.				1870.	1880.									
60 and above.	670,120	856,787	9.7	12.7	3.0	1.75	1.70	-0.05	670,120	856,787	1.75	1.70	68,832	1.02	7.97	838,201	5.60	42.97
55 to 60	2,091,268	2,816,959	14.6	19.7	5.1	5.42	5.02	+0.20	2,761,388	3,678,746	7.17	7.32	26,501	0.40	0.04	1,026,040	15.50	50.42
50 to 55	8,835,744	4,311,873	17.1	22.1	5.0	8.05	8.60	-0.05	6,097,182	7,985,010	15.82	15.02	65,804	0.90	1.53	2,207,280	30.54	51.10
45 to 50	10,273,444	12,754,684	46.5	57.7	11.2	26.64	25.43	-1.21	16,370,570	20,740,808	42.46	41.35	2,014,190	90.15	16.79	1,820,118	27.75	14.92
40 to 45	9,438,452	11,356,390	33.3	40.1	6.8	24.48	22.64	-1.84	25,809,028	32,090,093	66.94	63.90	1,048,732	15.70	9.28	636,953	10.44	6.05
35 to 40	7,932,592	10,018,618	30.4	38.5	8.1	20.57	19.97	-0.60	33,741,620	42,115,211	87.51	83.06	1,400,853	21.06	14.04	863,293	5.52	8.63
30 to 35	3,509,446	4,909,847	16.2	23.0	6.8	9.10	9.06	+0.06	37,251,000	47,100,058	96.01	93.02	1,188,095	17.70	23.79	77,918	1.18	1.58
25 to 30	464,745	1,217,286	3.4	0.0	5.0	1.21	2.43	+1.21	37,715,811	48,320,344	97.82	96.35	810,213	4.78	26.22	8,877	0.18	0.73
20 to 25	374,182	820,303	1.7	3.8	2.1	0.97	1.65	+0.08	38,080,993	49,155,647	98.79	98.00	278,802	4.17	33.62	8,293	0.18	1.00
15 to 20	254,008	530,856	0.6	1.5	0.7	0.66	1.06	+0.40	38,844,901	49,656,508	99.45	99.06	152,502	2.28	28.74	2,086	0.05	0.56
10 to 15	181,028	314,984	0.2	0.5	0.3	0.34	0.63	+0.20	38,476,524	50,001,487	99.79	99.00	61,884	0.93	19.65	8,539	0.05	1.12
Below 10.....	81,847	154,296	0.3	0.5	0.2	0.21	0.81	+0.10	38,558,371	50,155,788	100.00	100.00	48,780	0.78	31.02	1,287	0.02	0.83

It will be noticed that the heaviest population is in the 3 classes between 35 and 50 in., which comprise 71.69 per cent. of the total population of the country, while the classes between 30 and 60 in. comprise 92.2 per cent.

The densest settlement is the class 45 to 50, which also contains the greatest absolute population. In this class also is the greatest absolute increase in density.

The average annual rainfall upon the surface of the United States, exclusive of Alaska, is approximately 29 in.

The average rainfall with relation to the population—that is, giving weight to each area of the country in proportion to the density of its population—was, in 1870, 43.5 inches. In 1880, owing to the movement of population toward the arid regions of the extreme West, this had decreased to 42.9 inches.

It will also be noticed that the general movement is toward the regions of least rainfall, corresponding to the general set of the population westward.

The popular notion that the colored population is mainly found in the region of heavy rainfall is strikingly borne out by this table. In the region having a rainfall of about 60 inches annually the colored form no less than 43 per cent. of the total population; in the next grade 36½, while in the region having a rainfall of 50 to 55 inches

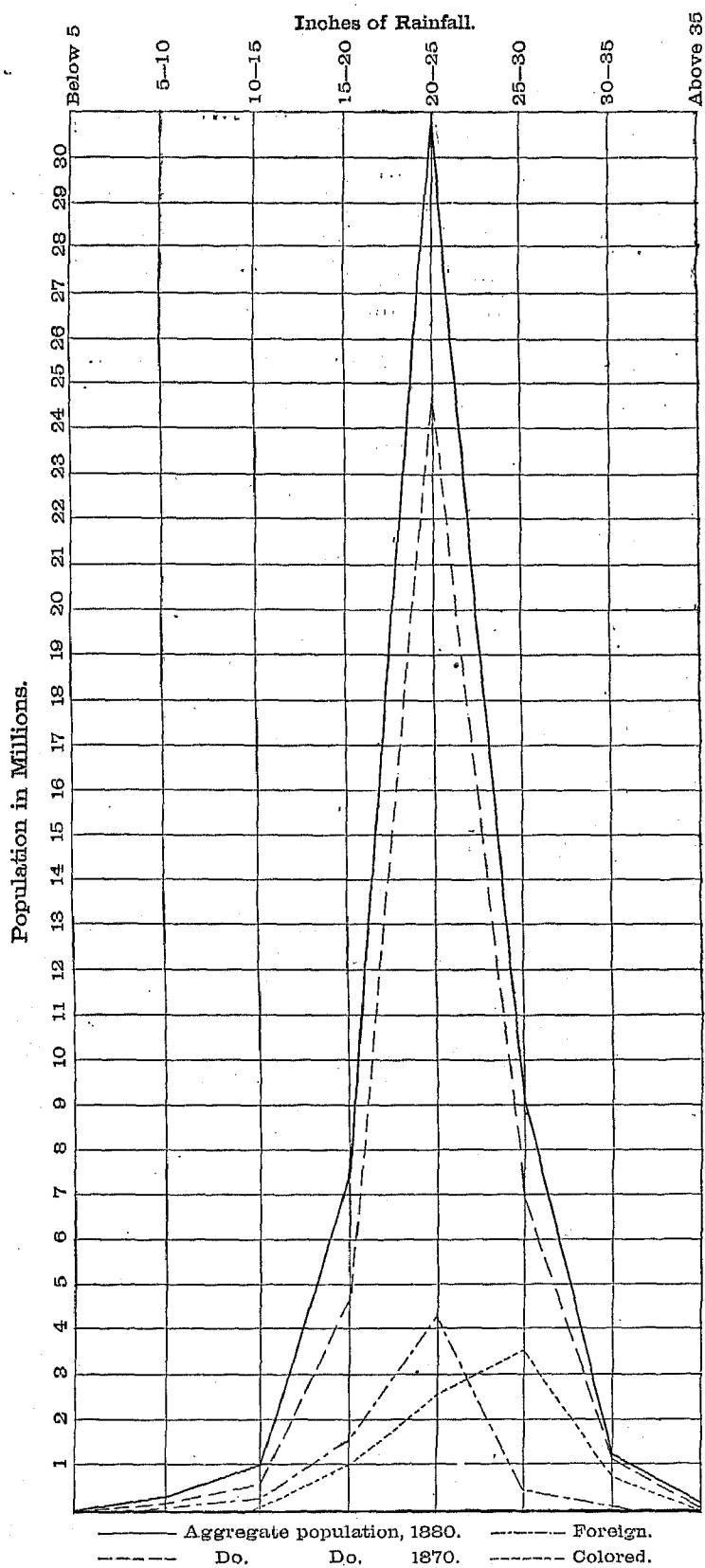
INTRODUCTION—DISCUSSION OF THE POPULATION

annually more than half the inhabitants are colored. Where the rainfall is less than 45 inches the colored population falls below the average, in some cases very far below. Numerically, no less than 85 per cent. of the colored population are found between 40 and 60 inches. The foreign population is largely grouped between 30 and 50 inches, that region containing nearly 85 per cent. of the foreign-born residents of the United States.

Table XXXIX shows the distribution of the population with respect to the rainfall of the spring and summer months; that is, the half of the year which, in general, is the growing period for vegetation.

The range of rainfall is from 0 to 38 inches, or thereabouts.

DISTRIBUTION OF POPULATION IN ACCORDANCE WITH RAINFALL OF SPRING AND SUMMER.



PARTMENT OF THE INTERIOR.



NOTE. The areas in the following regions
are largely hypothetical.
The material used for this map was
taken mainly from the Smithsonian
Rainfall tables by that School.

Julius Bechtell

DISTRIBUTION OF POPULATION IN LATITUDE AND LONGITUDE. LXVII

TABLE XXXIX.

Classes— inches of rainfall.	Population.		Population per square mile.		Increase in density, 1870-1880.	Percentage of total population. 1870.	Change in percentage of total population, 1870-1880.	Population above each grade.		Percentage of total population above each grade.	Foreign.	Percentage of total foreign. 1870.	Proportion of foreign to total in group.	Colored.	Percentage of total colored. 1870.	Proportion of colored to total in group.		
	1870.	1880.	1870.	1880.				1870.	1880.									
	1870.	1880.	1870.	1880.	Increase in density, 1870-1880.	Percentage of total population. 1870.	Change in percentage of total population, 1870-1880.	1870.	1880.	Percentage of total population above each grade.	Foreign.	Percentage of total foreign. 1870.	Proportion of foreign to total in group.	Colored.	Percentage of total colored. 1870.	Proportion of colored to total in group.		
35 and above.	66,280	80,071	3.4	4.1	0.7	0.17	0.16	-0.01	66,280	80,071	0.17	0.16	1,578	0.02	1,96	37,101	0.57	40.10
30 to 35	1,104,981	1,278,610	15.0	17.4	1.5	3.02	2.55	-0.47	1,231,261	1,359,281	3.19	2.71	17,977	0.27	1.41	708,673	10.77	55.43
25 to 30	7,015,493	9,138,302	21.5	28.0	0.5	18.20	18.22	+0.02	8,246,754	10,407,583	21.39	20.93	401,720	0.02	4.40	3,280,715	49.99	36.00
20 to 25	24,830,001	30,880,014	38.0	47.2	9.2	64.42	61.57	-2.85	33,086,855	41,377,507	85.81	82.50	4,270,749	0.02	13.82	2,435,850	37.01	7.89
15 to 20	4,732,388	7,320,341	10.0	15.5	5.5	12.27	14.61	+2.34	37,818,743	48,700,938	98.08	97.11	1,500,002	23.81	21.70	98,364	1.40	1.31
10 to 15	534,515	972,376	1.0	1.9	0.9	1.88	1.94	+0.56	38,853,258	49,670,314	99.46	99.05	271,977	4.07	27.97	8,068	0.14	0.02
5 to 10	151,936	395,013	0.2	0.6	0.4	0.40	0.70	+0.30	38,505,104	50,074,027	99.86	99.84	100,708	1.51	25.46	3,359	0.05	0.85
Below 5.....	53,177	80,856	0.2	0.3	0.1	0.14	0.16	+0.02	38,558,371	50,155,783	100.00	100.00	18,533	0.28	22.02	667	0.01	0.82

It will be seen that more than three-fifths of the population are in one class, from 20 to 25 inches, while four-fifths of the population are in the two classes between 20 and 30 inches; adding the class 15 to 20 inches to the above, makes nearly 95 per cent. of the total population between 15 and 30 inches.

The average rainfall for the spring and summer months on the surface of the country is, approximately, 17 inches. In 1870 the average rainfall, considering population and not area, as above, was 23.3 inches, which has decreased during the decade from 1870 to 1880, from the westward movement of population, to 22.9 inches.

What has been said with relation to the annual rainfall is, in an equal degree, applicable to the distribution of the foreign and colored elements with reference to the spring and summer rainfall, the foreign population being found in that class where there is a moderate or scanty rainfall, while the colored is found in that which is most abundantly watered.

DISTRIBUTION OF POPULATION IN LATITUDE AND LONGITUDE.

The following three tables, numbered XL, XLI, and XLII, show the distribution of population in latitude and longitude. The first table shows its distribution in latitude. The first column of the table indicates the intervals between two successive parallels and meridians from the eastern to the western boundary of the country. Opposite each of the classes is given the population in 1870 and 1880, the absolute increase, the percentage of increase, the population which was living north of the most southern of the two parallels in 1870 and 1880, and the percentage of total population in each of the last classes.

The second table shows, in a similar manner, the distribution of the population in longitude; that is, the number living between successive meridians in a tier extending from the northern to the southern boundary of the country, the successive columns giving information similar to that contained in the corresponding columns in the first table.

The third table shows the number living within each square degree; that is, the quadrilateral embraced between two successive parallels and meridians. This table may be regarded as a sort of population map of the United States, although it must be confessed that it is greatly extended in a northern and southern direction and contracted from east to west. An examination of it will show a general resemblance to the outline of the country, the Atlantic, Gulf, and Pacific coasts, and the northern boundary, with the re-entrant angle caused by the great lakes, being plainly outlined. The heavy settlement along the Atlantic border, and thence westward to the line of the Mississippi, is plainly indicated by the figures, which are emphasized by the large numbers in the quadrilaterals which contain the great cities. The sparse settlement of the western country, and the entire absence of settlement in certain portions of it, is very forcibly brought out.

INTRODUCTION—DISCUSSION OF THE POPULATION.

DISTRIBUTION OF POPULATION IN 1870 AND 1880 IN LATITUDE.

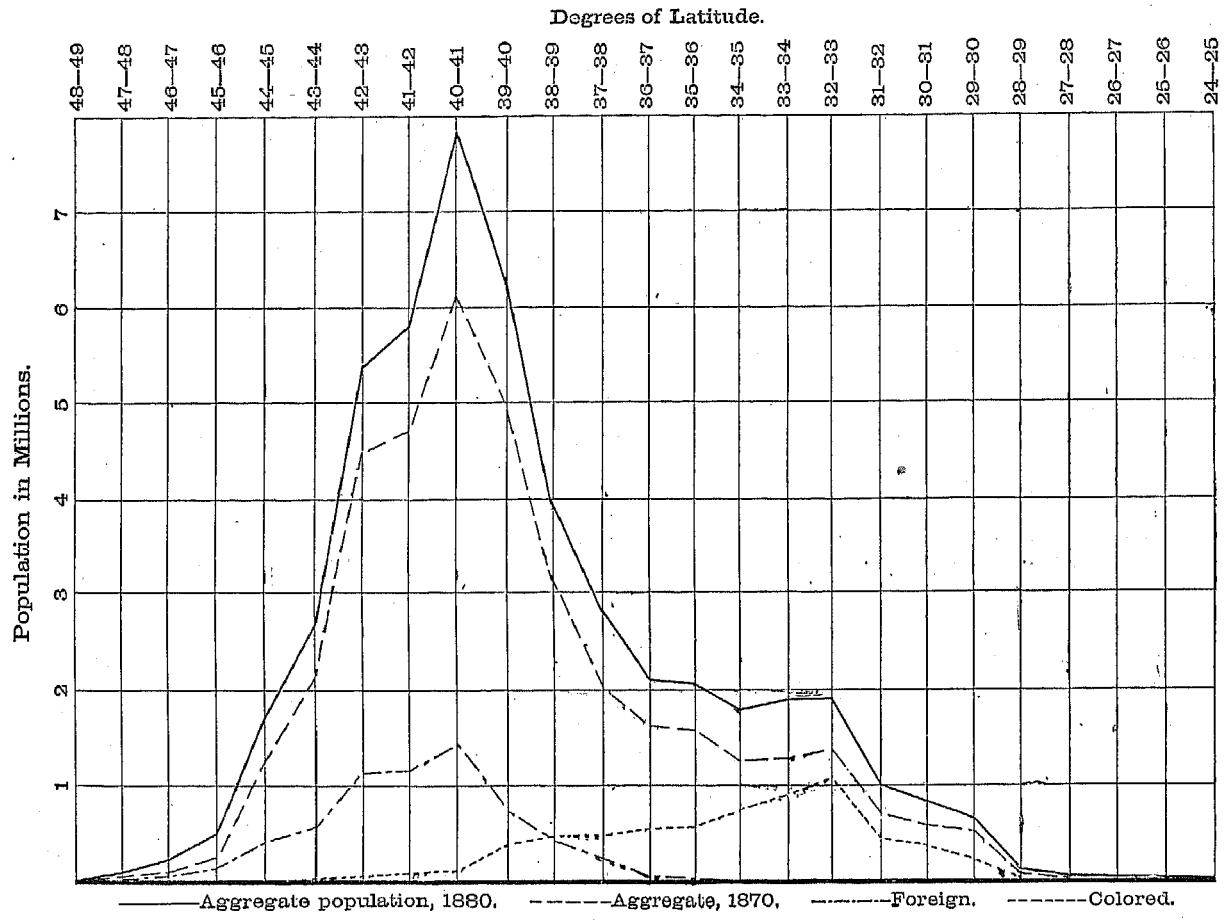


TABLE XL.

Degree of latitude.	Population.	Population.	Increase.		Population north of each parallel.		Per cent. of total population north of each parallel.	
	1870.	1880.	Absolute.	Per cent.	1870.	1880.	1870.	1880.
48-49.....	0,113	10,444	10,331	169	6,113	16,444	0.0	0.0
47-48.....	20,527	79,083	49,556	168	35,640	95,527	0.1	0.2
46-47.....	88,511	215,111	126,600	158	110,151	310,638	0.8	0.6
45-46.....	249,149	483,143	233,994	94	368,300	703,781	0.0	1.6
44-45.....	1,354,445	1,707,795	413,350	31	1,722,745	2,564,576	4.4	5.1
43-44.....	2,197,034	2,678,588	481,554	22	3,819,739	5,230,004	10.1	10.4
42-43.....	4,485,247	5,857,851	872,604	19	8,405,026	10,507,815	21.7	21.1
41-42.....	4,715,940	5,938,011	1,222,071	26	13,120,066	16,535,826	34.0	32.0
40-41.....	6,176,920	7,802,855	1,685,926	27	19,207,895	24,398,681	50.0	48.0
39-40.....	4,994,238	6,205,029	1,210,791	26	21,202,133	30,663,710	63.0	61.1
38-39.....	3,120,058	3,995,956	806,898	28	27,421,101	34,050,066	71.1	60.1
37-38.....	2,017,490	2,881,270	813,780	40	20,438,681	37,490,036	76.3	74.7
36-37.....	1,643,754	2,170,098	526,314	32	31,082,465	39,061,034	86.6	70.0
35-36.....	1,503,592	2,077,826	484,234	80	32,676,057	41,738,860	84.7	83.1
34-35.....	1,281,090	1,805,477	523,781	41	33,957,753	43,544,337	88.0	86.7
33-34.....	1,201,028	1,039,598	648,570	50	35,248,781	45,483,035	91.4	90.0
32-33.....	1,383,203	1,038,653	555,450	40	36,631,084	47,422,588	95.0	94.5
31-32.....	747,087	1,050,089	312,652	42	37,370,021	48,482,277	96.0	96.0
30-31.....	504,896	865,084	270,248	45	37,973,857	49,347,301	98.4	98.3
29-30.....	504,019	673,441	168,522	33	38,478,776	50,020,802	99.7	99.7
28-29.....	98,758	60,655	21,807	56	38,517,534	50,081,457	99.8	99.8
27-28.....	17,954	36,262	18,308	102	38,535,488	50,117,710	99.9	99.9
26-27.....	12,249	20,707	8,458	60	38,547,737	50,138,426	100.0	100.0
25-26.....	6,108	8,064	2,556	42	38,558,845	50,147,090	100.0	100.0
24-25.....	4,526	8,003	4,167	92	38,558,371	50,155,783	100.0	100.0

DISTRIBUTION OF POPULATION IN LATITUDE AND LONGITUDE. LXIX

DISTRIBUTION OF POPULATION IN 1870 AND 1880 IN LONGITUDE.

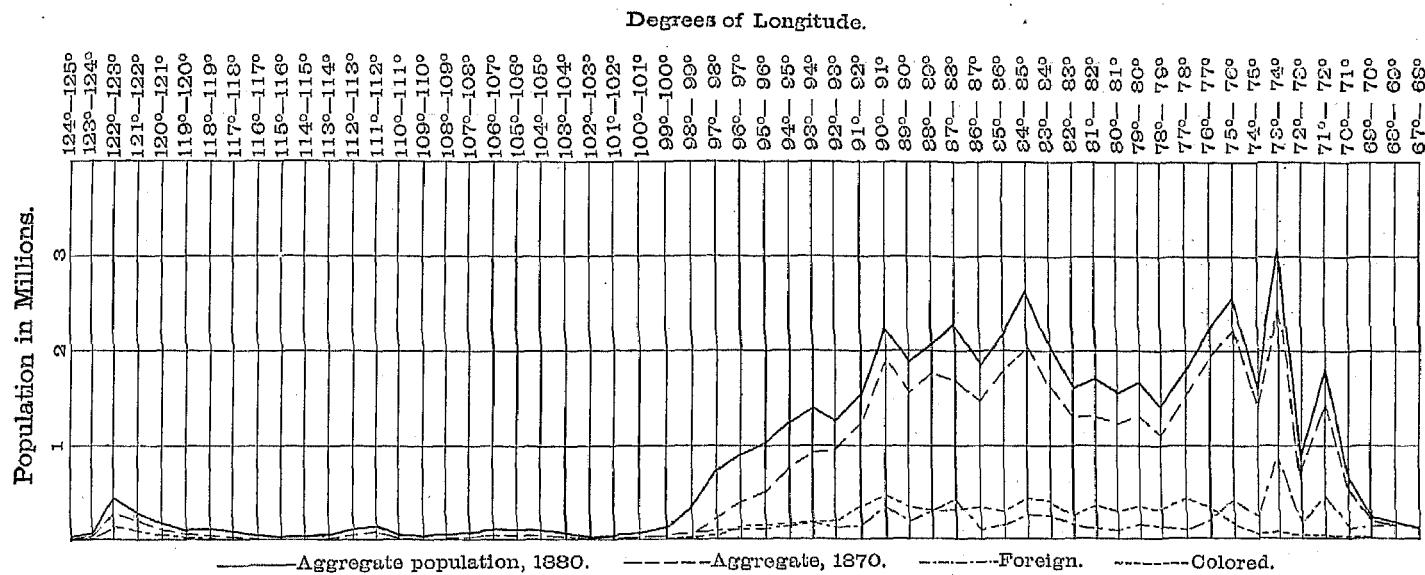


TABLE XLI.

Degrees of longitude.	Population.	Population.	Increase.		Population east of each meridian.		Per cent. of total population east of each meridian.	
	1870.	1880.	Absolute.	Per cent.	1870.]	1880.]	1870.	1880.
67-68.	49,265	52,817	8,552	7	40,205	52,817	0.1	0.1
68-69.	125,348	129,818	4,470	4	174,013	182,635	0.5	0.4
69-70.	200,921	201,623	602	0	375,504	384,158	1.0	0.8
70-71.	540,504	600,091	59,527	11	922,098	990,240	2.4	2.0
71-72.	1,434,130	1,763,023	328,884	23	2,330,237	2,753,273	6.1	5.5
72-73.	824,447	920,934	96,487	12	2,180,684	2,674,200	8.3	7.3
73-74.	2,404,185	3,030,838	632,053	20	5,584,860	6,711,044	14.4	13.4
74-75.	1,453,864	1,693,823	140,059	10	7,038,738	8,314,867	18.3	16.6
75-76.	2,196,010	2,500,606	304,577	18	9,234,752	10,905,463	23.9	21.8
76-77.	1,902,301	2,220,018	317,717	17	11,187,050	13,125,481	28.9	26.2
77-78.	1,488,131	1,700,637	272,506	18	12,035,184	14,880,118	32.8	29.7
78-79.	1,102,630	1,376,026	273,396	25	13,727,814	16,262,144	35.6	32.4
79-80.	1,307,523	1,670,342	362,810	27	15,035,337	17,032,480	39.0	35.7
80-81.	1,213,128	1,550,376	340,248	28	16,248,405	19,491,802	41.6	38.8
81-82.	1,277,167	1,082,811	405,074	32	17,525,032	21,174,703	44.9	42.2
82-83.	1,238,443	1,571,917	333,474	25	18,764,075	22,746,620	48.1	45.3
83-84.	1,583,244	2,049,440	466,202	20	20,347,319	24,706,066	52.8	49.4
84-85.	2,054,044	2,577,672	523,228	25	22,401,663	27,373,038	58.0	54.5
85-86.	1,762,379	2,181,307	419,018	24	24,104,042	29,555,035	62.7	58.9
86-87.	1,484,312	1,810,855	346,543	23	25,648,354	31,885,800	66.5	62.6
87-88.	1,663,706	2,258,544	594,749	36	27,812,140	33,614,484	70.8	67.1
88-89.	1,711,672	2,051,000	840,427	20	29,023,721	35,636,433	77.0	71.2
89-90.	1,506,052	1,854,884	257,032	16	30,820,073	37,551,317	70.4	74.9
90-91.	1,851,580	2,235,722	884,136	20	32,472,250	39,787,039	84.2	79.4
91-92.	1,105,300	1,480,185	284,795	24	33,667,640	41,207,224	87.3	82.4
92-93.	906,788	1,268,049	207,165	31	34,034,437	42,531,107	89.8	84.9
93-94.	945,833	1,401,403	455,600	48	35,580,270	48,032,600	92.3	87.7
94-95.	806,000	1,200,630	453,733	56	36,887,176	45,193,299	94.3	90.2
95-96.	516,049	694,564	478,505	03	36,008,225	46,187,853	95.7	92.2
96-97.	874,481	900,318	525,537	140	37,277,706	47,088,171	96.7	94.0
97-98.	206,670	722,221	515,542	249	37,484,385	47,810,992	97.2	95.4
98-99.	58,643	307,321	308,378	520	37,548,028	48,177,713	97.3	96.1
99-100.	12,533	120,877	114,344	012	37,555,501	48,304,500	97.8	96.4
100-101.	4,000	48,161	*49,242	881	37,560,470	48,352,741	97.4	96.5
101-102.	1,260	4,048	8,670	200	37,561,739	48,357,689	97.4	96.5
102-103.	2,137	10,863	8,716	408	37,569,576	48,368,542	97.4	96.5
103-104.	7,734	32,900	25,175	827	37,571,010	48,401,451	97.4	96.6
104-105.	31,323	86,244	54,021	175	37,602,038	48,487,005	97.5	96.8
105-106.	44,882	97,300	53,008	110	37,647,915	48,585,085	97.6	97.0
106-107.	39,307	95,033	55,636	141	37,680,712	48,630,118	97.7	97.2
107-108.	18,181	26,213	18,682	01	37,699,843	48,706,331	97.8	97.3
108-109.	7,658	15,540	7,882	103	37,707,501	48,721,871	97.8	97.3
109-110.	2,205	12,501	10,256	445	37,709,806	48,734,432	97.8	97.3
110-111.	6,320	23,012	17,586	277	37,716,132	48,758,344	97.8	97.4
111-112.	70,234	119,150	48,923	70	37,786,660	48,877,500	98.0	97.6
112-113.	26,821	55,080	29,159	100	37,813,187	48,933,480	98.1	97.7
113-114.	12,432	21,370	8,038	73	37,825,010	48,954,850	98.1	97.7
114-115.	10,106	11,231	1,126	11	37,835,725	48,966,082	98.1	97.7
115-116.	12,307	13,030	633	5	37,848,122	48,970,112	98.1	97.7
116-117.	10,070	23,838	13,750	136	37,858,201	49,002,950	98.2	97.8
117-118.	23,506	58,080	35,084	140	37,881,707	49,061,630	98.2	97.9
118-119.	22,647	58,632	35,885	150	37,904,444	49,126,102	98.3	98.0
119-120.	41,126	71,324	30,108	73	37,916,670	49,191,480	98.5	98.1
120-121.	87,721	119,050	31,928	30	38,033,291	49,210,535	98.6	98.3
121-122.	178,116	257,818	70,697	45	38,211,407	49,268,348	99.1	98.8
122-123.	474,697	100,230	67	38,495,874	50,048,045	99.8	100.0	
123-124.	55,815	96,011	40,196	72	38,551,680	50,139,050	100.0	100.0
124-125.	6,682	10,797	10,045	150	38,558,371	50,155,783	100.0	100.0

INTRODUCTION—DISCUSSION OF THE POPULATION.

TABLE XLII.—DISTRIBUTION OF THE

Degrees of longitude.	DEGREES OF LATITUDE.											
	48-49	47-48	46-47	45-46	44-45	43-44	42-43	41-42	40-41	39-40	38-39	37-38
67-68			4,170	13,065	85,582							
68-69		4,160	16,680	30,400	69,560							
69-70		4,180	5,657	19,853	148,419	23,414						
70-71				11,521	104,641	176,217	208,007	105,705				
71-72				1,858	44,351	148,088	1,122,518	445,608				
72-73					130,473	119,397	265,545	367,770	37,740			
73-74						116,306	146,507	410,117	423,846	1,930,862		
74-75						58,186	57,702	203,418	334,070	813,877	136,471	
75-76						80,027	180,295	102,700	286,113	540,718	1,106,021	134,801
76-77						13,221	168,353	274,044	169,968	423,093	649,266	177,517
77-78							166,606	193,309	126,091	106,870	257,240	257,816
78-79							95,002	245,045	90,241	188,056	122,332	121,305
79-80							16,252	199,403	178,813	451,080	180,484	44,560
80-81								37,341	248,771	304,002	158,570	56,721
81-82									315,150	250,687	204,985	108,167
82-83									60,803	120,326	224,802	241,050
83-84						5,050	26,274	124,362	312,175	293,833	201,061	238,084
84-85						3,491	18,414	18,836	101,221	188,710	184,906	232,009
85-86						4,521	7,899	35,692	114,170	203,104	201,239	199,587
86-87						2,623	2,048	15,866	47,283	56,076	152,268	198,255
87-88						1,281	23,692	20,405	70,536	105,907	135,188	576,567
88-89						14,237	15,579	685	123,843	208,011	240,061	164,089
89-90						2,711	4,430	57,762	106,020	148,384	145,070	176,560
90-91						1,917	9,094	41,970	97,050	154,301	208,191	161,042
91-92						187	1,370	17,357	83,890	108,852	126,670	137,460
92-93						490	1,351	5,470	84,460	107,778	103,021	103,457
93-94						600	50,048	195,332	64,361	78,011	143,186	114,180
94-95						102	7,575	56,530	60,805	35,586	55,500	90,044
95-96						1,120	20,535	34,988	20,486	26,084	40,239	123,717
96-97						1,897	17,206	21,898	13,903	10,392	20,747	36,850
97-98						3,124	6,423	2,508	276	6,892	22,436	20,196
98-99						140	278	1,868	1,043	1,140	2,073	9,557
99-100							280	-----	215	256	1,457	4,021
100-101						324	3,150	405	1,241	115	1,456	3,128
101-102						332	206	115	-----	581	349	538
102-103								1,706	-----	500	500	500
103-104						583	1,323	-----	13,248	905	950	1,658
104-105						251	200	193	663	640	5,120	4,518
105-106						500	302	-----	485	463	3,700	11,700
106-107						504	251	102	127	-----	2,407	251
107-108						250	-----	101	127	-----	1,543	98
108-109						252	-----	-----	-----	512	768	545
109-110						310	885	550	-----	769	1,078	550
110-111						800	1,191	546	1,092	287	287	879
111-112						305	1,541	2,798	4,900	696	696	4,628
112-113						887	1,530	9,901	3,982	100	1,781	2,787
113-114						290	250	8,170	543	802	160	656
114-115						306	250	552	1,095	446	178	656
115-116						253	302	585	1,018	1,168	1,812	571
116-117						250	305	8,711	600	2,134	4,989	571
117-118						250	4,512	12,715	4,055	3,692	462	401
118-119						249	124	9,417	6,790	860	863	860
119-120						120	-----	1,387	4,248	430	860	430
120-121						128	405	2,373	5,215	2,224	1,402	8,520
121-122						451	8,874	101	4,034	2,224	1,112	2,001
122-123						5,554	11,076	7,989	42,867	16,505	1,900	8,154
123-124						310	1,451	9,567	10,974	28,043	9,543	8,444
124-125						328	92	-----	-----	5,703	1,208	8,306

DISTRIBUTION OF POPULATION IN LATITUDE AND LONGITUDE. LXXI

POPULATION IN 1880 BY SQUARE DEGREES.

The following tables, numbered XLIII, XLIV, XLV, and XLVI, show the distribution of the foreign and colored population in latitude and longitude and by square degrees. The first of these shows the number of these two elements of the population in latitude tiers running from east to west across the country, the percentage of the total foreign and colored in each group, and the percentage in each group of the foreign and of the colored in relation to the aggregate population in that group. The complementary distribution of these two elements of the population is brought out very markedly in this table. The larger proportion of the foreign is found between latitudes 37° to 45° , while, relative to the aggregate in each group, the foreign is found to be in excess in all latitudes from 49° down to 40° . From latitude 40° down to latitude 28° the proportion is below the average of the country, while in the most southerly latitudes, where the population is sparse, it is found again in excess.

The largest proportion of the colored population is found between latitudes 40° and 29° , while from latitude 49° down to 38° the proportion to the aggregate in the group is less than the average. From latitude 38° to 28° it is largely in excess, one grade, 32° to 33° , comprising more than one half the population. In the three degrees between 25° and 28° of latitude it is below the average, while in the lowest degree, from 24° to 25° , the southern point of Florida, it is again in excess.

The second of these tables shows the distribution of the foreign and the colored elements in longitude. The columns of this table are similar to those of the preceding table. It may be said, in general, that the distribution of the foreign population in longitude differs from that of the aggregate mainly in a slight excess in the western portion of the country at the expense of the eastern portion, while in regard to the colored the reverse is the case.

The third table shows the distribution of the foreign population by square degrees, and the fourth the distribution of the colored population in a similar manner. These two tables are made up on the same plan as that of the aggregate population—by square degrees—and require no further explanation.

TABLE XLIII.

Degrees.	Foreign.	Percent. of total foreign.	Proportion of foreign to total in group.	Colored.	Percent. of total colored.	Proportion of colored to total in group.	Degrees.	Foreign.	Percent. of total foreign.	Proportion of foreign to total in group.	Colored.	Percent. of total colored.	Proportion of colored to total in group.
48-49.....	6,497	0.1	39.5				34-35.....	21,804	0.3	1.2	722,204	10.97	40.00
47-48.....	31,030	0.5	39.9	225	0.00	0.28	33-34.....	21,613	0.3	1.1	884,250	13.44	45.59
46-47.....	73,864	1.1	34.3	746	0.01	0.35	32-33.....	36,460	0.5	1.8	1,089,887	16.56	56.22
45-46.....	140,177	2.1	29.0	1,905	0.03	0.39	31-32.....	14,236	0.2	1.3	474,330	7.21	44.76
44-45.....	405,733	6.1	22.9	4,343	0.07	0.25	30-31.....	29,848	0.4	3.4	404,928	6.15	46.81
42-44.....	596,812	8.9	22.2	10,132	0.16	0.38	29-30.....	91,067	1.4	13.5	234,783	3.57	34.86
42-43.....	1,126,563	16.9	21.0	42,448	0.65	0.79	28-29.....	6,975	0.1	11.4	14,210	0.22	23.43
41-42.....	1,174,151	17.6	19.7	64,705	0.98	1.00	27-28.....	13,429	0.2	37.0	1,872	0.03	5.16
40-41.....	1,425,864	21.3	18.1	124,521	1.89	1.58	26-27.....	11,223	0.2	54.1	686	0.01	3.31
39-40.....	730,681	10.0	11.6	382,401	5.81	6.10	25-26.....	4,420	0.1	51.1	886	0.00	4.46
38-39.....	432,870	6.5	10.8	473,789	7.20	11.86	24-25.....	4,405	0.1	50.6	2,568	0.03	20.54
37-38.....	232,547	3.5	8.2	402,209	7.48	17.39	Total	6,679,943			6,580,793		
36-37.....	24,050	0.4	1.1	565,088	8.59	26.04							
35-36.....	23,015	0.3	1.1	588,137	8.94	28.31							

TABLE XLIV.

Degrees.	Foreign.	Percent. of total foreign.	Proportion of foreign to total in group.	Colored.	Percent. of total colored.	Proportion of colored to total in group.	Degrees.	Foreign.	Percent. of total foreign.	Proportion of foreign to total in group.	Colored.	Percent. of total colored.	Proportion of colored to total in group.
67-68.....	8,725	0.13	16.51				82-83.....	106,868	1.60	6.79	242,673	3.00	15.44
68-69.....	12,035	0.18	9.26	192	0.00	0.14	83-84.....	210,555	3.15	10.27	300,742	4.59	14.67
69-70.....	10,278	0.16	5.10	472	0.00	0.23	84-85.....	229,314	3.43	8.89	422,470	6.42	16.39
70-71.....	88,349	1.32	14.87	3,510	0.05	0.57	85-86.....	145,486	2.18	6.06	307,168	4.67	14.08
71-72.....	440,597	6.60	24.99	20,317	0.92	1.15	86-87.....	94,050	1.41	5.12	335,735	5.10	18.34
72-73.....	168,778	2.53	17.61	10,423	0.16	1.09	87-88.....	409,924	6.14	18.15	848,072	5.29	15.41
73-74.....	898,498	13.41	20.61	49,489	0.75	1.63	88-89.....	290,579	4.35	14.16	301,423	4.58	14.60
74-75.....	204,960	4.42	18.39	39,769	0.61	2.48	89-90.....	190,596	2.85	10.27	354,085	5.39	10.14
75-76.....	405,687	6.07	15.65	148,687	2.26	5.74	90-91.....	341,604	5.12	15.28	469,597	7.15	21.00
76-77.....	197,948	2.96	8.91	356,727	5.42	1.61	91-92.....	187,334	2.51	11.30	320,103	5.00	22.23
77-78.....	102,057	1.53	5.79	457,486	6.95	25.98	92-93.....	187,164	2.05	11.18	167,713	2.55	13.67
78-79.....	108,740	1.63	7.90	301,986	4.50	21.95	93-94.....	154,376	2.31	11.01	150,158	2.28	10.71
79-80.....	157,118	2.35	9.40	337,795	5.13	20.22	94-95.....	125,437	1.88	9.95	186,525	2.68	11.02
80-81.....	102,135	1.53	6.54	207,756	4.52	19.09	95-96.....	117,341	1.76	11.79	141,023	2.14	14.18
81-82.....	128,751	1.93	7.65	348,316	5.20	20.70	96-97.....	128,615	1.92	14.97	119,410	1.81	13.26

DISTRIBUTION OF POPULATION IN LATITUDE AND LONGITUDE. LXXIII

TABLE XLIV—Continued.

Degrees.	Foreign.	Per cent. of total foreign.	Proportion of for- eign to total in group.	Colored.	Per cent. of total colored.	Proportion of col- ored to total in group.	Degrees.	Foreign.	Per cent. of total foreign.	Proportion of for- eign to total in group.	Colored.	Percent. of total colored.	Proportion of col- ored to total in group.
97-98.....	107,927	1.62	14.95	50,792	0.86	7.86	112-113.....	17,138	0.26	30.61	325	0.01	0.58
98-99.....	58,234	0.87	15.85	8,480	0.13	2.81	113-114.....	6,033	0.09	28.28	107	0.00	0.50
99-100.....	10,927	0.30	15.70	2,202	0.03	1.74	114-115.....	3,365	0.05	29.95	.....	.....	.....
100-101.....	0,246	0.14	10.20	1,429	0.02	2.97	115-116.....	4,973	0.07	38.10	.....	.....	.....
101-102.....	1,240	0.02	25.06	.....	.....	.....	116-117.....	8,022	0.18	37.42	53	0.00	0.22
102-103.....	2,624	0.04	23.25	900	0.01	2.76	117-118.....	11,336	0.17	10.3	288	0.00	0.49
103-104.....	7,616	0.11	23.14	580	0.01	1.70	118-119.....	13,886	0.21	23.7	100	0.00	0.17
104-105.....	14,063	0.21	16.30	1,377	0.02	1.60	119-120.....	21,728	0.33	30.4	200	0.00	0.28
105-106.....	15,053	0.24	16.98	824	0.01	0.85	120-121.....	36,208	0.54	30.1	160	0.00	0.14
106-107.....	15,273	0.23	16.07	797	0.01	0.84	121-122.....	81,307	1.22	31.4	1,551	0.02	0.60
107-108.....	4,192	0.06	15.99	118	0.00	0.45	122-123.....	160,816	2.54	35.1	4,426	0.07	0.02
108-109.....	2,097	0.05	10.28	.....	.....	.....	123-124.....	18,825	0.28	20.4	587	0.01	0.04
109-110.....	8,627	0.05	28.87	.....	.....	.....	124-125.....	2,203	0.04	20.0	.....	.....	.....
110-111.....	9,778	0.15	40.80	100	0.00	0.42	Total ..	6,670,943	.....	.....	6,580,793	.....	.....
111-112.....	38,007	0.57	31.89	301	0.00	0.25							

INTRODUCTION—DISCUSSION OF THE POPULATION.

TABLE XLV.—DISTRIBUTION OF THE FOREIGN

Degrees of longitude.	DEGREES OF LATITUDE.												
	48-49	47-48	46-47	45-46	44-45	43-44	42-43	41-42	40-41	39-40	38-39	37-38	
67-68			937	2,307	5,481								
68-69		937	3,757	3,042	3,309								
69-70		937	900	818	6,592	932							
70-71				414	9,823	21,499	44,417	12,196					
71-72					358	6,476	16,707	207,140	119,826				
72-73						16,674	9,877	57,620	80,682	8,925			
73-74						21,229	10,018	80,496	77,098	700,057			
74-75						10,782	6,302	28,618	55,099	187,878	11,321		
75-76							18,421	33,116	14,034	65,185	59,811	218,061	770
76-77							1,757	27,314	32,070	17,589	30,380	69,249	6,703
77-78								40,021	21,172	11,716	3,706	4,675	14,232
78-79								10,802	48,917	12,172	16,191	8,839	5,233
79-80								8,852	48,231	16,049	75,414	5,066	871
80-81									6,572	92,095	55,040	4,070	738
81-82										82,100	21,370	10,183	1,844
82-83											10,183	1,844	100
83-84											15,426	16,064	7,757
84-85												18,727	4,464
85-86												22,867	771
86-87													1,100
87-88													2,171
88-89													5,330
89-90													15,255
90-91													3,298
91-92													10,470
92-93	209	644	2,218	12,080	34,268	26,317	18,865	16,211	-5,178	6,660	6,707	1,124	
93-94										3,711	6,031	5,207	
94-95											22,090	9,304	5,408
95-96													5,123
96-97	1,110	9,473	7,873	14,507	10,538	7,042	8,392	22,058	10,420	13,357	8,452	8,050	
97-98	1,073	8,716	9,595	4,887	6,317	6,247	8,395	20,070	13,474	11,458	7,081	3,240	
98-99										9,740	14,440	3,735	
99-100											4,754	6,316	1,187
100-101											2,580	8,576	750
101-102		100										515	802
102-103												101	
103-104	108		441		3,952	248	137	346		903		223	
104-105												1,600	607
105-106													708
106-107													970
107-108													775
108-109													504
109-110	158	223	120										
110-111													
111-112													
112-113	566	555	743	982	243	194	1,371	10,031	16,449	5,116	184	165	
113-114										1,023	2,065	968	557
114-115										1,024		618	1,502
115-116													237
116-117	104	223	514	662	904	246	171	858	503	138	304		
117-118	141	106	810	911	996	1,204	248	171	3,418	1,730	138		
118-119	107	846	1,339	416	1,044	130	130	254	663	613	210	321	
119-120	101			1,978	589	256	256	143	897		370	2,303	
120-121				188	375	128	256	128			12,280	2,854	1,432
121-122	221	1,177		1,033	540		114	320	870	12,440	11,568	5,362	
122-123	1,734	8,310	1,298	10,817	1,978	110	933	2,392	8,673	14,776	24,146	32,143	
123-124		403	3,476	4,383	1,777	1,600	581	835	2,754	2,167	849	123,018	
124-125								179		2,114			

DISTRIBUTION OF POPULATION IN LATITUDE AND LONGITUDE. LXXV

POPULATION IN 1880 BY SQUARE DEGREES.

TABLE XLVI.—DISTRIBUTION OF COLORED

Degrees of longitude.	DEGREES OF LATITUDE.												
	48-49	47-48	46-47	45-46	44-45	43-44	42-43	41-42	40-41	39-40	38-39	37-38	
67-68													
68-69					192								
69-70					363	100							
70-71					120	644	1,219	1,527					
71-72						297	10,810	9,201					
72-73					277	305	1,801	6,822	1,718				
73-74					482	986	5,361	9,553	38,087				
74-75						355	1,940	7,454	21,892	8,128			
75-76					225	905	1,507	1,273	9,274	70,492	38,988	14,650	
76-77						1,030	3,226	1,243	6,283	80,632	77,866	61,994	
77-78						965	1,504	802	4,062	38,518	98,076	123,422	
78-79						647	1,320	445	1,308	6,352	27,075	77,596	
79-80						124	865	1,084	7,347	8,014	6,033	47,034	
80-81							175	1,740	9,090	2,513	1,672	13,630	
81-82								2,984	2,413	5,060	4,455	2,649	
82-83									1,435	2,481	8,026	8,806	767
83-84								5,104	1,397	5,813	17,500	14,538	2,048
84-85					1,327	100	1,060	1,601	1,229	3,592	17,747	52,673	29,403
85-86						257	661	2,402	1,315	2,347	4,198	46,047	26,787
86-87						253	707	1,160	1,466	1,790	9,033	1,894	15,043
87-88							300	5,880	615	2,718	6,768	25,125	
88-89						675	600	702	985	1,250	892	954	14,843
89-90									426	1,338	2,636	5,085	14,200
90-91								100	1,552	1,317	3,003	36,300	2,503
91-92						100	100	125	780	3,409	10,352	8,072	768
92-93			200	201		267	175	378	1,256	1,022	16,600	11,032	1,138
93-94						431		285	1,026	717	13,333	7,021	4,080
94-95									211	640	22,272	8,685	4,629
95-96									1,187	828	12,204	6,010	3,804
96-97						200			427	884	1,130	1,827	502
97-98								110	100	101	262	551	406
98-99											167	042	
99-100											612	206	273
100-101			100			100					100		
101-102													
102-103											300		
103-104						201		156			232		
104-105									108		811	308	
105-106											438	286	
106-107													
107-108													
108-109													
109-110													
110-111									100				
111-112			146										
112-113			200							125			
113-114									107				
114-115													
115-116													
116-117							53						
117-118										188	100		
118-119			100				100				200		
119-120													
120-121											166		
121-122											342	1,000	209
122-123			125									480	3,812
123-124			100			287	100	100					
124-125													

DISTRIBUTION OF POPULATION IN LATITUDE AND LONGITUDE. LXXXVII

POPULATION IN 1880 BY SQUARE DEGREES.